Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A production process for a liquid concentrate of adapted and viable bacteria, for use in foodstuffs comprising the following successive steps:

a) the bacteria are propagated in a fermenter in an appropriate culture medium;

b) the bacteria obtained are adapted to step a);

c) the culture medium containing the bacteria adapted by tangential microfiltration is washed using a washing solution;

d) the washed medium containing the bacteria adapted by tangential microfiltration to a bacterial concentration greater than 5.10^{10} ufc/ml advantageously greater than 1.10^{11} ufc/ml are concentrated in bacteria;

e) a liquid concentrate of adapted and viable bacteria for use in foodstuffs is recovered.

and/or adaptation of the bacteria carried out at step b) is disclosed by measuring parameters of the culture medium and/or bacteria parameters.

2. (Currently amended) The process as claimed in Claim 1, ~~characterised in that~~ wherein the bacteria are lactic bacteria, in particular bacteria of Lactobacillus spp, Bifidobacterium spp., Streptococcus spp and Lactococcus spp genera.

3. (Currently amended) The process as claimed in ~~Claim 1 and 2, characterised in that~~ claim 1, wherein the culture medium of step a) is a synthetic medium.

4. (Currently amended) The process as claimed in ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the culture medium containing the bacteria in the fermenter at the end of step a) has a pH between 3 and 6.

5. (Currently amended)The process as claimed in ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the concentration of bacteria at the end of propagation step a) is greater than 2.10^{10} ufc/ml.

6. (Currently amended) The process as claimed in Claim 1, ~~characterised in that~~ wherein the parameters of the culture medium are the pH, the osmotic pressure and/or the temperature of the culture medium.

7. (Currently amended) The process as claimed in Claim 6, ~~characterised in that~~ wherein the parameter of the culture medium is the pH and in that the step b) is taken by reducing the pH by natural acidification.

8. (Currently amended) The process as claimed in Claim 6, ~~characterised in that~~ wherein the parameter of the culture medium is the temperature, and in that step b) is taken by reducing the temperature.

9. (Currently amended) The process as claimed in ~~any one of Claims 1, 6, 7, 8, characterised in that~~ claim 1, wherein the parameter of the bacteria is the size of the bacteria.

10. (Currently amended) The process as claimed in Claim 1, ~~characterised in that~~ wherein the distribution of the lengths of each bacterium is predominantly between 0.1 and 10 micrometres, advantageously between 0.5 and 5 micrometres.

11. (Currently amended) The process as claimed in ~~any one of the preceding claims, characterised in that~~ claim 1, wherein adaptation step b) is taken by tangential microfiltration.

12. (Currently amended) The process as claimed ~~any one of the preceding claims, characterised in that~~ claim 1, wherein the tangential microfiltration membranes have a porosity between 0.01 and 0.5 μm, advantageously between 0.1 and 0.3 μm.

13. (Currently amended) The process as claimed in ~~any one of the preceding claims, characterised in that~~ claim 1, wherein in step c) the inlet pressure of the culture medium in the microfiltration module is between 0 and 3.10^5 Pa.

14. (Currently amended) The process as claimed in ~~any one of the preceding claims, characterised in that~~ claim 1, wherein in steps c) and d) the rate of the permeate is between 0.001 and 0.1 $m^3/h/m^2$ of surface exchange.

15. (Currently amended) The process as claimed in ~~any one of the preceding claims, characterised in that~~ claim 1, wherein in step d) the transmembrane pressure is between $0.1.10^5$ and 2.10^5 Pa and advantageously between $0.1.10^5$ and $0.5.10^5$ Pa.

16. (Currently amended) The process as claimed in ~~any one of the preceding claims, characterised in that~~ claim 1, wherein in step d) the recirculation rate of the washed medium is between 0.5 and 3 $m^3/h/m^2$ of exchange surface and advantageously between 0.8 and 1.25 $m^3/h/m^2$ of exchange surf ace.

17. (Currently amended) The process as claimed in ~~any one of the preceding claims, characterised in that it comprises~~ claim 1, further comprising prior to step a) successive steps of revival and preculture of the bacteria.

18. (Currently amended) The process as claimed in ~~any one of the preceding claims, characterised in that it comprises~~ claim 1, further comprising an additional step f), following step e), of packaging the liquid concentrate of adapted and viable bacteria in flexible and hermetic bags.

19. (Currently amended) The process as claimed in Claim 18, ~~characterised in that it comprises~~ further comprising an additional step g), following step f), of keeping the liquid concentrate of adapted and viable bacteria packaged in flexible bags and hermetic at a temperature between -50°C and +4°C.

20. (Currently amended) The process as claimed in Claim 19, ~~characterised in that it comprises~~ further comprising an additional step h), following step g), of reheating by adapted

means of the liquid concentrate of adapted and viable bacteria packaged in flexible and hermetic bags.

21. (Currently amended) A device for executing the process for production of a liquid concentrate of adapted and viable bacteria for use in foodstuffs as claimed in ~~any one of Claims 1 to 20, characterised in that it comprises~~ claim 1, comprising a vat (1) containing a washing solution, an inlet conduit (2) of said washing solution in an fermenter (3), said fermenter (3) serving as propagation of the bacteria in a culture medium, an outlet conduit (4) for conveying the culture medium containing the bacteria to one or more modules (5) of tangential microfiltration, said modules (5) allowing separation of said culture medium into a permeate (6) not containing bacteria and into a concentrate (7) containing the bacteria.

22. (Currently amended) The device as claimed in Claim 21, ~~characterised in that~~ wherein the concentrate (7) is recycled on leaving the filtration modules (5) by reincorporation into the fermenter (3).

23. (Currently amended) The device as claimed in ~~Claims 21 and 22, characterised in that~~ claim 21, wherein the filtration modules (5) comprise from 1 to 10 filtration membranes, each membrane representing from 0.1 m^2 to 150 m^2 of total filtration surface.

24. (Currently amended) A liquid concentrate of adapted and viable bacteria, characterised in that it is likely to be obtained by the process as claimed in ~~any one of Claims 1 to 20~~ claim 1.

25. (Currently amended) ~~Utilisation of the liquid concentrate of adapted and viable bacteria as claimed in Claim 24 as a~~ A foodstuff ~~additive~~ comprising the liquid concentrate of adapted and viable bacteria as claimed in claim 24.

26. (Currently amended) ~~An~~ A food product additive ~~food product, characterised in that the foodstuff additive utilise is~~ comprising a liquid concentrate of adapted and viable bacteria as claimed in Claim 24.

27. (Currently amended) ~~The~~ A milk product and/or beverage comprising the food product additive ~~food product~~ as claimed in Claim 26~~, characterised in that it is a milk product and/or a beverage~~.

28. (Currently amended) A manufacturing process for an additive food product as claimed in ~~any one of Claims 26 or 27, characterised in that~~ claim 26, wherein the liquid concentrate of adapted and viable bacteria is added to the food product at the end of the production line and preferably prior to packaging of the food product.